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NCIC HPV
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Subject: Environmental Defense comments on Ethyl Bromide (CAS# 74-96-4)



Richard_Denison@environmentaldefense.org on 05/20/2003 12:52:27 PM

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Subject: Environmental Defense comments on Ethyl Bromide (CAS# 74-96-4)

(Submitted via Internet 5/20/03 to oppt.ncic@epa.gov, hpv.chemrtk@epa.gov, boswell.karen@epa.gov, chem.rtk@epa.gov, MTC@mchsi.com, and rhenrich@glcc.com)

Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for Ethyl Bromide (CAS# 74-96-4).

Great Lakes Chemical Corporation, in response to the EPA High Production Volume Challenge Program, has submitted a Robust Summary/Test Plan for ethyl bromide. According to the Test Plan, ethyl bromide is used primarily as a chemical intermediate, a refrigerant and a solvent. The latter two uses provide considerable potential for human and environmental exposure, but the Test Plan makes little mention of possible sources of human or environmental release or exposure. We think it would be in order to include this information in the Test Plan.

The Test Plan proposes to bridge data previously developed for methyl bromide to predict certain SIDS elements for ethyl bromide. It is mentioned that these two chemicals might be considered together as a category, although that proposal has not formally been made here. Given the significantly greater toxicity of methyl bromide, we do not think it appropriate that these two chemicals be considered together as a category. Nevertheless, we agree that it is a conservative approach to use data for methyl bromide to bridge data for ethyl bromide as a means to address reproductive and developmental toxicity.

We do not think it appropriate to bridge data for methyl bromide to estimate the toxicity of ethyl bromide to aquatic plants. This is because the sponsor's speculation that ethyl bromide may be less bioavailable or bioaccessible because it is less volatile than methyl bromide is incorrect. Indeed, it could well be argued that because methyl bromide is a gas at ambient temperature, it could be expected to rapidly dissipate into the atmosphere and be degraded by sunlight. By contrast, ethyl bromide is a liquid at ambient temperature and thus would be more likely to enter soil and water. This different partitioning aside, ethyl bromide hydrolyzes in water and would not be expected to persist. Nevertheless, direct testing of ethyl bromide for toxicity to aquatic plants is needed.

The Robust Summary submitted for ethyl bromide is well-organized and clearly describes experimental conditions and results for relevant studies of both ethyl bromide and methyl bromide (the latter used to bridge data to predict ethyl bromide toxicity). We also compliment Great Lakes Chemical Corporation for including references in the Test Plan and providing a list

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of references at the end of both the Robust Summary and the Test Plan.

Thank you for this opportunity to comment.

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